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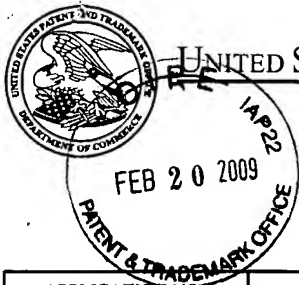


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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,774

01/21/2005

Akira Obuchi

040894-7130

2534

9629 7590 02/17/2009
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EXAMINER

YOUNG, NATASHA E

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

02/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/521,774

Applicant(s)

OBUCHI ET AL.

Examiner

NATASHA YOUNG

Art Unit

1797

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 February 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-3, 8-10 and 19-23.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797

Continuation of 3. NOTE: Claims 9 and 10 are amended to include "heat generated in the fluid forwarding space portion is radiated to outside radiation heater by heat radiating plate", which raises new issues that would require further consideration and/or a new search.

Continuation of 11. does NOT place the application in condition for allowance because: Regarding claim 1, the applicants argue that Karoliussen does not disclose that the cross sectional area of the gap portion changes along the flow path of the fluids.

The examiner disagrees.

Karoliussen discloses that it is apparent that when the slit width (24) gets narrower, so will the actual heat flux q radiate a decreasing amount of heat, and a density of the steam bubbles increases; at a certain border the steam bubbles will start to combine to bigger bubbles; and this will set the water in strong motion, the heat flux will increase (the slit width will increase) and the quantity of steam bubbles increases, meaning a self amplifying reaction occurs (see column 3, lines 17-27) resulting in the cross sectional area of the gas portion changing along the flowpath of the fluids.

Regarding claim 2, the applicants argue that Jobson fails to disclose a self-heat exchange type heat exchanger wherein the structure extends beyond the end of the fluid forwarding space portion of the heat transfer material and a filter cloth is formed therearound in the form of bellows and that the final office action only addresses how the second of these features would have been obvious.

The examiner disagrees.

Jobson et al discloses a self-heat exchange type heat exchanger wherein as the heat transfer material there is used one having no air permeability, and the self-heat exchange type heat exchanger is formed by the heat transfer material (see Abstract, paragraphs 0004, 0011, and 0017, and figure 2), where 6a is the internal heating element.

Jobson does not disclose a self-heat exchange type heat exchanger is formed by the heat transfer material, a structure for spacer and a filter cloth in combination.

Burkhart discloses a filter leaf, a spacer, and a filter cloth (see Abstract and column 1, lines 33-40).

The combination of the prior art elements of heat transfer material, a spacer capable of filtering, and a filter cloth in combination would have yielded the predictable result of increasing the effectiveness of the catalytic purification device.

It would have been an obvious matter of design to construct filter covers in the shape of bellows, since applicant has not disclosed that filter covers in the shape of bellows solves any stated problems or is for any particular purpose and it appears that the invention would perform equally well with filter covers in the shape of bellows.

Regarding claim 3, the applicants argue that the adsorbing/desorbing agent does not catch and remove fine particles.

The examiner disagrees.

Jobson discloses an adsorption/desorption agent that adsorbs impurities, usually hydrocarbons and nitrogen oxides, (catches) and the impurities remain trapped until the temperature is sufficiently high to obtain a catalytic reaction resulting in a high degree of purification (removes) (see paragraph 0016).

In addition, the applicants argue that there is no gap between adjacent fins in Jobson to use in combination with Tongu.

The examiner disagrees.

Jobson discloses gaps (see figure 2 and paragraph 0030) since two half-flows (14, 15) flow in opposite directions through the flow channels (gaps) on the inlet side of the bundle (1b) towards reversing chambers (9, 10).

Regarding claim 8, the applicants argue that nothing in Jobson that could be construed as a heat transfer material allows gas permeation.

The examiner agrees.

However, Jobson discloses the carriers may be made of a thin metal sheet or foil (see paragraph 0016) such that any heat transfer material that can be made into a corrugated sheet and may be used as a catalyst carrier may be used instead of a thin metal sheet or foil, for example, gas permeable material should as a porous ceramic material formed into a corrugated sheet.

Regarding claim 21, the applicants argue that because claim 21 depends on claim 1 it is allowable.

The examiner disagrees (see response regarding claim 1 above).